CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A method for processing a signal, which comprises the following steps:

receiving the signal;

carrying out channel selection with an analog channel selection filter;

converting the signal to a digital, discrete-time and discrete-value signal; and

mathematically reconstructing a continuous-time and continuous-value signal profile using zero crossings $\{t_i\}$ and phase values $\{\phi(t_i) = k_i \cdot \pi/2,\ k_i \in N_0\}$ by way of a mathematical reconstruction algorithm using ~~a~~ an orthogonal function system $\{\varphi(t - k)\}$.

2 (original). The method according to claim 1, wherein the receiving step comprises receiving a digitally modulated signal in a cordless communications system.

3 (canceled).

4 (original). The method according to claim 1, which comprises limiting the signal and oversampling the limited signal for digitizing the received signal.

5 (original). The method according to claim 4, wherein the oversampling step comprises producing a signal with a word length of 1.

6 (original). The method according to claim 1, which comprises FSK-modulating the signal.

7 (currently amended). ~~The method according to claim 1, which comprises~~ A method for processing a signal, which comprises the following steps:

receiving the signal;

carrying out channel selection with an analog channel selection filter;

converting the signal to a digital, discrete-time and discrete-value signal;

mathematically reconstructing a continuous-time and continuous-value signal profile using zero crossings $\{t_i\}$ and phase values $\{\phi(t_i) = k_i \cdot \pi/2,\ k_i \in N_0\}$ by way of a mathematical reconstruction algorithm using a function system $\{\varphi(t - k)\}$; and

carrying out group delay time equalization in a signal path downstream from the mathematical reconstruction.

8 (original). The method according to claim 1, which comprises converting a signal frequency to an intermediate frequency after the channel selection.

9 (currently amended). A receiver circuit for a cordless communications system, comprising:

an analog signal processing section and a digital signal processing section;

said analog signal processing section containing a channel selection filter;

said digital signal processing section containing a phase reconstruction circuit for mathematical reconstruction of a continuous-time and continuous-value signal profile using zero crossings $\{t_i\}$ and periodic phase values $\{\phi(t_i) = k_i \cdot \pi/2,\ k_i \in$

N_0 }, by way of a mathematical reconstruction algorithm using a function system {$\varphi(t - k)$}; and

said digital signal processing section having a group delay time equalizer for equalization of at least signal distortion caused by said channel selection filter.

10 (canceled).

11 (currently amended). The receiver circuit according to claim 9 [[10]], wherein said group delay time equalizer is an all-pass filter.

12 (currently amended). A receiver circuit for a cordless communications system, comprising:

an analog signal processing section and a digital signal processing section connected to said analog signal processing section;

said analog signal processing section containing a channel selection filter;

said digital signal processing section containing a phase reconstruction circuit programmed to process a mathematical reconstruction algorithm using a function system {$\varphi(t - k)$} for mathematical reconstruction of a continuous-time and

continuous-value signal profile using zero crossings $\{t_i\}$ and periodic phase values $\{\phi(t_i) = k_i \cdot \pi/2,\ k_i \in N_0\}$; and

said digital signal processing section includes a group delay time equalizer for equalization of at least signal distortion caused by said channel selection filter.

13 (canceled).

14 (currently amended). The receiver circuit according to claim 12 [[13]], wherein said group delay time equalizer is an all-pass filter.